

REMARKS

A. Status of the Claims

Claims 5-63 are pending in the application. Claims 5, 6, 8, 10-19, 21, 25-27, 30, 36, 37, 46, 48-49, and 61 are amended. Claim 9, 10 and 47 are cancelled. Therefore claims 5-8, 11-46, and 48-63 are pending after entry of this amendment. Claims 5-63 stand rejected under 35 U.S.C. §112, second paragraph as allegedly failing to point out and distinctly claim the subject matter which the Applicants regard as their invention. Claims 5-63 stand rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled to practice the claimed invention.

B. Support for the Amendments

Support for the amendments to the claims can be found throughout the specification, the drawings, and the claims as originally drafted.

Claims 5, 8 and 30 have been amended to recite "polyether." Support for these amendments can be found in the specification, for example, on page 16, lines 10-15; page 18, lines 9-13; and page 24, lines 13-23; and page 25, line 16 to page 26, line 24.

Claim 5 has been amended to recite "two or more of R¹, R², R⁴, R⁵, R⁶, and R⁷ are optionally adjoined by at least one linker moiety to form at least one ring." Support for this amendment can be found in the specification, for example, on page 22, line 1, Formula XIII, which shows R¹ and R⁶ adjoined by a linker moiety to form three rings a polymacrocyclic compound.

Claim 6 has been amended to correct a typographical error. As amended, claim 6 depends from claim 5 instead of cancelled claim 4.

Claim 11 has been amended to incorporate the subject matter of deleted claims 9 and 10. Support for this amendment may be found in the specification, for example, on page 18, lines 9-20.

The Formula structures in claims 11, 12, 13, 48 and 49 have been amended to more clearly show the positions of the atoms in relation to Formula (I) of claim 5.

Claim 14 has been amended to correct a typographical error. As amended, claim 14 now depends from claim 12 instead of claim 13. In addition, claim 14 has been amended to recite "wherein b, b', e, e', f and f' are 1" in place of Formula (VI). Therefore, amended claim 14 is equivalent in scope to original claim 14.

Claims 15-18 have been amended to recite specific embodiments of R³. Support for these amendments can be found in the specification, for example, on page 24, line 10 to page 27, line 3.

Claim 21 has been amended to correct a typographical error. As amended, claim 21 now recite "is" in place of "as."

Claims 27 and 61 have been amended to correct a typographical error. Claims 27 and 61 now recite "and" in place of "an."

Claim 30 has been amended to explicitly define R⁴. Support for this amendment is found in the specification, for example, on page 17, line 19 to page 18, line 13. Claim 30 has also been amended to explicitly define Q⁴. Support for this amendment is found in original claim 49. In addition, claim 30 has been amended to recite "two or more of R¹, R⁶ and R³⁹ are optionally adjoined by at least one linker moiety to form at least one ring." Support for this amendment is found, for example, in the specification on page 22, line 1, Formula XIII, which shows R¹, R⁶ and R³⁹ adjoined by a linker moiety.

Claim 46 has been amended to recite "wherein R³ is -(CH₂)₂-" which is equivalent in scope to original claim 46.

Claim 48 has been amended to incorporate the subject matter of deleted claim 47. Support for this amendment can be found in the specification, for example, on page 5, lines 2-7; page 16, lines 14-19; page 17, lines 19-21; page 18, lines 4-7; and page 22, line 1, Formula XIII, which shows R¹, R⁶, R²⁹ and R³⁹ adjoined by a linker moiety.

Therefore, no new matter is introduced with this amendment.

C. Response to Claim Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 5-63 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. The Examiner presented 22 grounds for rejecting claims 5-63 under 35 U.S.C. §112, second paragraph. Each of these grounds are discussed below in the order they were presented in the Examiner's Official Action.

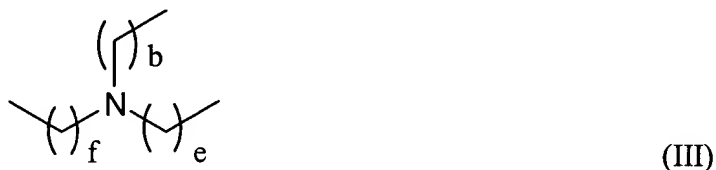
1. The Term "Polyether" in Claims 22-24

The Examiner has rejected claims 22-24 as lacking antecedent basis for the term "polyether." Applicants have amended claims 5, 8 and 30 to recite "polyether." Therefore, Applicants respectfully request withdrawal of the rejection.

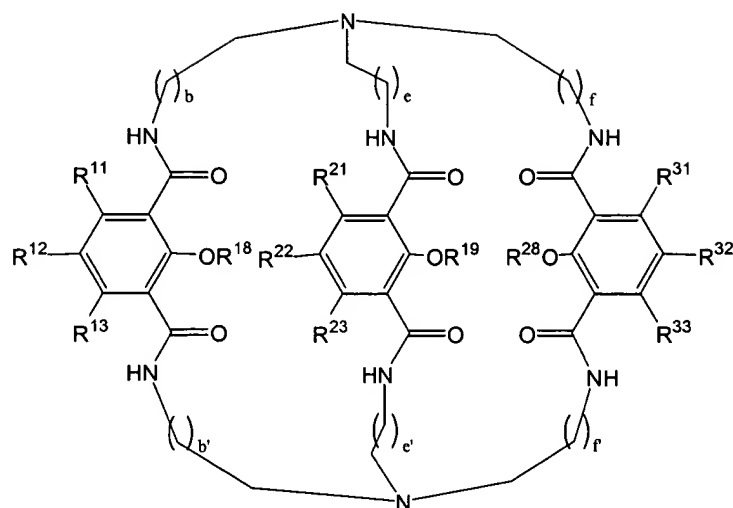
2. The Claim 5 Phrase "At Least One Linker to Form At Least One Ring"

The Examiner has rejected claim 5 as allegedly being unclear for the recitation of the phrase "wherein, two or more of R^2 , R^4 , R^5 , and, when R^3 is substituted alkyl, a substituent of R^2 are optionally joined by at least one linker moiety to form at least one ring." More specifically, the Examiner asserts that the structures of the "one linker moiety" and "at least one ring" are unclear.

Applicants respectfully direct the Examiner's attention to Applicants' specification at page 18, line 9 to page 19 line 4, wherein exemplary linker moieties useful in forming macrocyclic or polycyclic structures are discussed. The specification identifies a preferred linker moiety as having the structure of Formula (III), a tertiary amine.

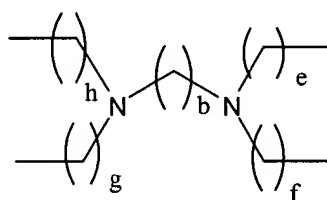


A polycyclic compound formed using the linker moiety of Formula (III) is presented on page 19, line 1, formula (IV).



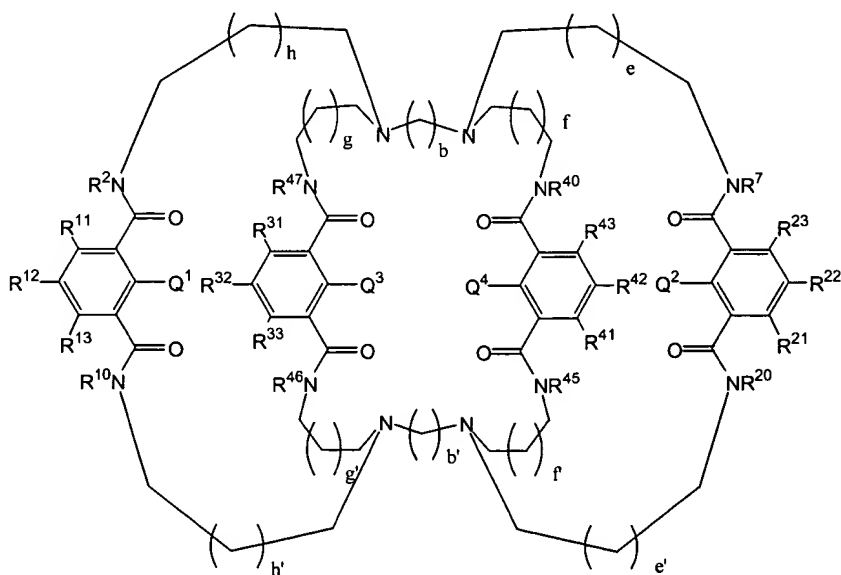
(IV).

In addition, on page 21, lines 9-13, another preferred linker moiety is presented. This linker moiety has the structure of Formula (XII).



(XII)

A polymacrocyclic compound formed using the linker moiety of Formula (XII) is presented on page 22, line 1, Formula (XIII).

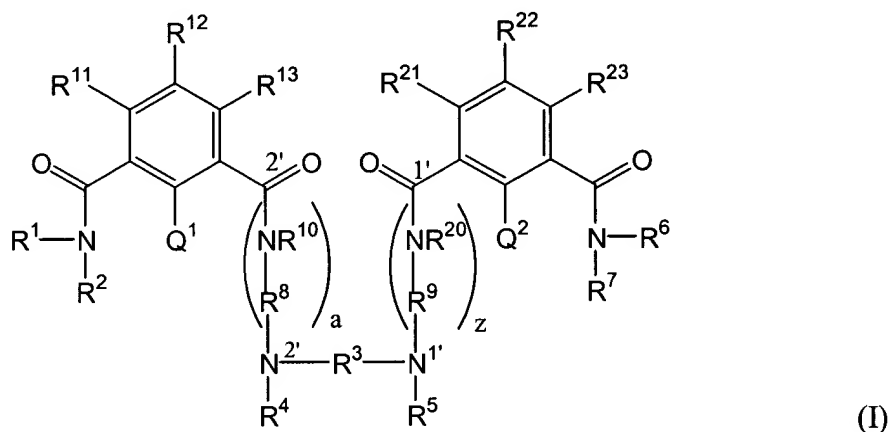


(XIII)

Therefore, Applicants respectfully submit that the structure of the "one linker moiety" and the "at least one ring" formed using the linker moiety is clear. However, to expedite prosecution, Applicants have amended claim 5 to recite "two or more of R^1 , R^2 , R^4 , R^5 , R^6 , and R^7 are optionally adjoined by at least one linker moiety to form at least one ring."

In addition, Applicants have amended the structures of Formulas (III), (IV), (XII) and (XIII) in claims 11, 12, 48 and 49, respectively, to clarify the positions of the applicable linker moieties in relation to Formula (I). A complete explanation of these amendments and the position of the linker moieties are presented below.

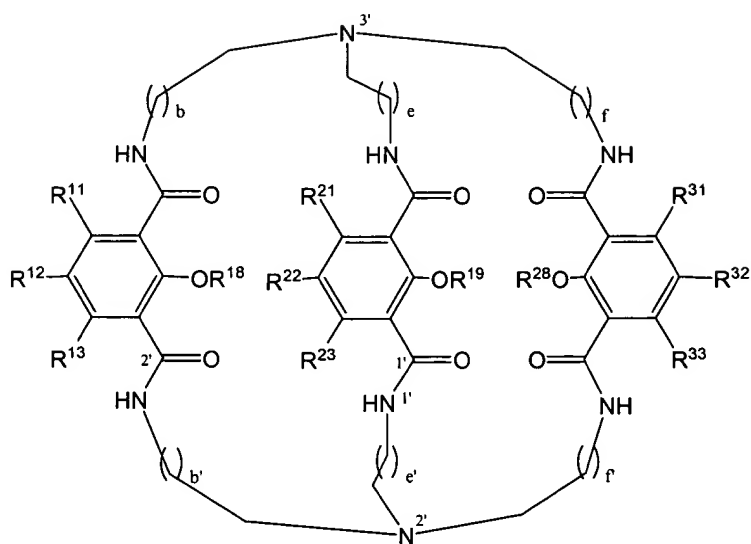
As shown below in Formula (I) of claim 5, $-NR^{10}-R^8-$ is between $N^{2'}$ and the 2'-carbonyl and $-NR^{10}-R^8-$ is between the $N^{1'}$ and 1' carbonyl.



Formula (III) has been amended to explicitly identify the linker moiety nitrogen as $N^{3'}$.



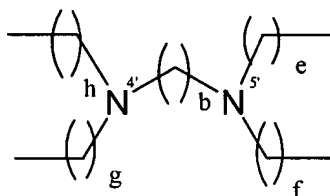
Formula (IV) has been amended to explicitly identify the position of $N^{3'}$ relative to $N^{2'}$ and $N^{1'}$.



(IV)

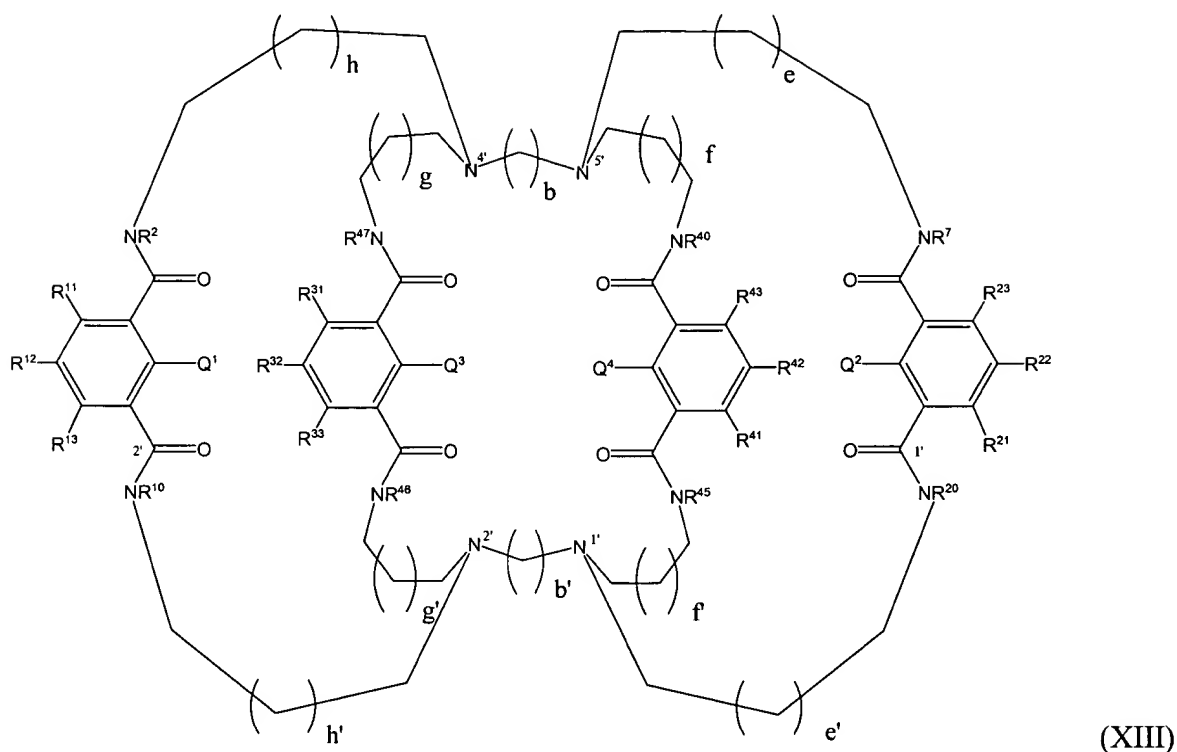
As shown above in Formula (IV), the linker moiety of Formula (III) is connected to the structure of Formula (I) through three alkyl linker moieties of length defined by b , e , and f . In addition, R^3 of Formula (I) is represented by the alkyl linker of length e' between $N^{2'}$ and $N^{1'}$. R^5 of Formula (I) is represented by the phthalamidyl derivative on the far right connecting $N^{2'}$ to the linker moiety.

Similarly, Formula (XII) has been amended to explicitly identify the linker moiety nitrogens as $N^{4'}$ and $N^{5'}$.



(XII)

Formula (IV) has been amended to explicitly identify the positions of $N^{4'}$ and $N^{5'}$ relative to $N^{2'}$ and $N^{1'}$.



As shown above in Formula (XIII), the linker moiety of Formula (XII) is connected to the structure of Formula (I) through four alkyl linker moieties of length defined by e, f, g, and h. In addition, R³ of Formula (I) is represented by the alkyl linker of length b' between N^{2'} and N^{1'}. R⁴ and R⁵ of Formula (I) are represented by the phthalamidyl derivatives in the middle connecting N^{2'} and N^{1'}, respectively, to the linker moiety.

3. The Claim 5 Terms R³, R⁸, and R⁹

The Examiner has rejected claim 5 for allegedly improperly defining the terms R³, R⁸ and R⁹. The Examiner asserts that R³, R⁸ and R⁹ may not be defined as "alkyl" or "aryl" because R³, R⁸ and R⁹ are non-terminal groups and the terms "alkyl" and "aryl" are limited to terminal groups.

Applicants respectfully submit that the terms "alkyl" and "aryl" are not limited to terminal groups. Applicants have used the terms "alkyl" and "aryl" throughout the specification to refer to both terminal groups and non-terminal groups. For example, on page 16, lines 6-15, Applicants discuss the linking of phthalamidyl groups through a backbone.

Representative backbone groups are identified, which include "alkyl groups" and "aryl groups." In addition, on page 16, lines 23-25, the groups R^3 , R^8 and R^9 are specifically identified as including "alkyl, substituted alkyl, aryl and substituted aryl groups." On page 18, lines 14-20, a variety of linker moiety embodiments are identified, including "alkyl" and "aryl groups."

Applicants note that the specification explicitly defines "alkyl" on page 10, line 28 to page 11, line 2. In this passage, alkyl is defined as a "monovalent hydrocarbon radical." Applicants assert that, after reading the entire specification, one of skill in the art would understand that the recitation of an alkyl as a "monovalent hydrocarbon radical" on page 10 is a typographical error and that an alkyl, as used in the claims, refers to a monovalent or divalent hydrocarbon radical. Applicants note that the passage on page 10, line 28 to page 11, line 2 is the only instance in which the specification refers to an alkyl as a monovalent radical only. In all other portions of the specification, an alkyl group is referred to as a monovalent or a divalent hydrocarbon radical. However, if the Examiner believes it is necessary, Applicants are willing to amend the specification to explicitly recite that an alkyl is a "monovalent or divalent hydrocarbon radical" on page 10, line 29.

4. The Claim 5 Phrase "Wherein R^{12} Can Optionally Form a Ring with R^{11} , R^{13} or both"

The Examiner asserts that the phrase "wherein R^{12} can optionally form a ring with R^{11} , R^{13} or both" in claim 5 is unclear. More specifically, the Examiner asks whether a single ring is formed when all three of R^{12} , R^{11} , and R^{13} are joined. The Examiner further asks what structures are formed from the ring combinations. The Examiner notes that the problem also pertains to the ring definitions involving R^{31} , R^{32} and R^{33} of claim 8.

Applicants respectfully submit that the phrase "wherein R^{12} can optionally form a ring with R^{11} , R^{13} or both" of claim 5 and the phrase "wherein R^{12} can optionally form a ring with R^{11} , R^{13} or both" of claim 8 are clear.

Applicants note that an identically worded phrase issued in U.S. Patent No. 6,515,113 (see claim 5), which was examined by the Examiner and from which the current

application claims priority. Therefore, the Examiner has already examined and allowed this phrase without rejection under 35 U.S.C. §112, second paragraph.

Nonetheless, in answer to the Examiner's queries, Applicants respectfully submit that one of skill in the art would immediately recognize that where R^{12} forms a ring with both R^{11} and R^{13} , two rings are formed, both of which include R^{12} and the carbon to which R^{12} is attached. Likewise, in claim 8, where R^{32} forms a ring with both R^{31} and R^{33} , two rings are formed, both of which include R^{32} and the carbon to which R^{32} is attached. In addition, Applicants submit that one of skill in the art would immediately recognize that the structures of the 2 rings formed would be a combination of the rings explicitly recited in claims 5 and 8, i.e. cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems. Thus, for example, where R^{12} forms a ring with both R^{11} and R^{13} , the ring formed by the combination of R^{12} and R^{11} may be a substituted cyclic alkyl while the ring formed by the combination of R^{12} and R^{13} may be an aryl.

5. The Claim 5 Term "Heterocyclyl"

The Examiner suggests the term "heterocyclyl" in claim 5 encompasses both saturated and unsaturated compounds. Applicants agree with the Examiner that the term "heterocyclyl" encompasses both saturated and unsaturated compounds. Therefore, Applicants have deleted the phrase "saturated heterocyclyl" from claims 5, 7, 8 and 30.

6. Claims Dependent from Deleted Claim 4

The Examiner points out that several claims improperly depend from cancelled claim 4. Applicants have amended claim 6 to properly depend from claim 5.

7. The Claim 7 Phrase "A Linear C_1 - C_6 Hydrocarbon"

The Examiner asserts that the term "alkyl" in claim 5 does not encompass the term "a linear C_1 - C_6 hydrocarbon" in claim 7. As discussed above in section C.3., the term "alkyl" encompasses both monovalent and divalent hydrocarbon radicals. Therefore,

Applicants respectfully submit that the term "alkyl" encompasses "a linear C₁-C₆ hydrocarbon."

8. The Claim 8 Term "Substituted Alkyl"

The Examiner asserts that Formula II of claim 8 is not a "substituted alkyl." Applicants agree with the Examiner. However, Applicants respectfully point out that Formula II is not a substituted alkyl in claim 8. Rather, claim 8 recites that Formula II is a substituent of R⁴, wherein R⁴ is a substituted alkyl. Therefore, Applicants respectfully submit that claim 8 is clear and definite.

9. The Claim 8 Phrase "Q³-OR²⁸" is Unclear

Applicants respectfully submit that one of skill in the art would immediately recognize that the recitation of "Q³-OR²⁸" is a typographical error. Applicants have amended the claims to recite "Q³ is -OR²⁸."

10. The Claim 9 Phrase "At Least One Ring" is Unclear

Applicants respectfully submit that the phrase "at least one ring" is clear. Applicants respectfully direct the Examiner's attention to page 18, line 9 to page 19, line 11, wherein exemplary polymacrocyclic structures are discussed in detail. In light of this and other disclosures in the specification, Applicants respectfully submit that the meaning of "at least one ring" would be clear to one of skill in the art.

However, to expedite prosecution, Applicants have deleted claim 9.

11. The Claim 10 Phrase "A Single Linker Moiety"

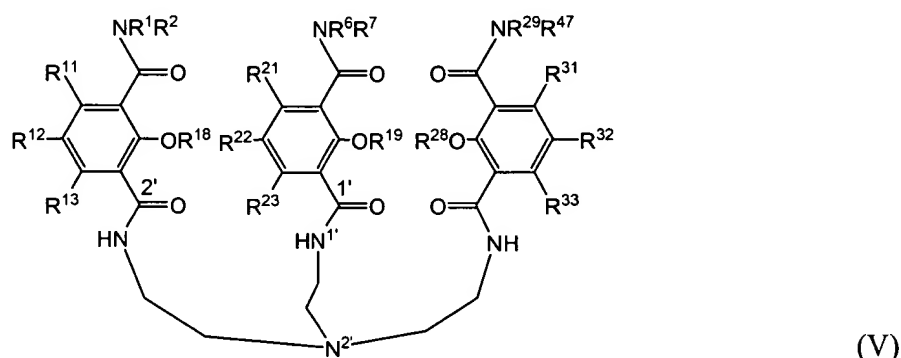
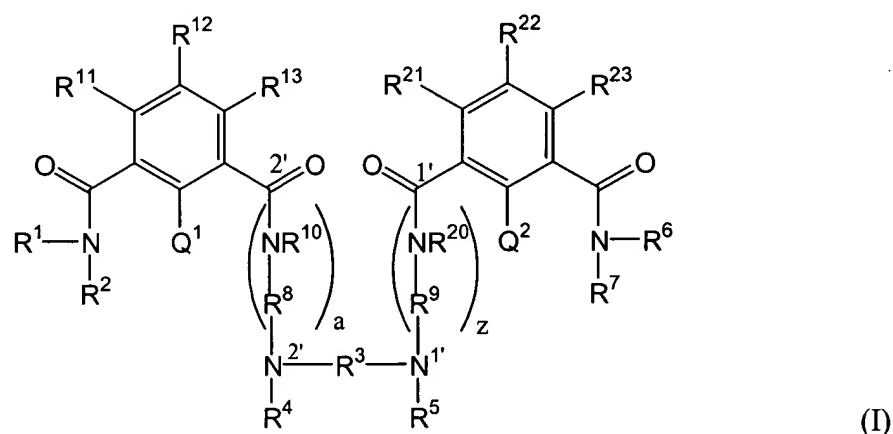
The Examiner asserts that the phrase "R², R⁶ and R²⁹ together comprise a single linker moiety" is unclear. The Examiner also points out the definitions of R², R⁶ and R²⁹ do not include a "linker moiety."

Applicants have deleted claim 10 solely for the purpose of expediting prosecution.

12. Formula (V) of Claim 13

The Examiner asserts that the term "a" of Formula (I), claim 5 must be zero to achieve the structure of Formula (V) in claim 13.

Applicants have amended Formula (V) to more clearly show the relative positions of the atoms identified in Formula I of claim 5.



As shown in Formula (I), $-NR^{10}-R^8-$ is between $N^{2'}$ and the $2'$ -carbonyl. Amended Formula (V) now identifies $N^{2'}$ and the $2'$ -carbonyl. As shown in amended Formula (V), the $-NR^{10}-R^8-$ of Formula (I) is now defined as $-NH-CH_2CH_2-$ in claim 13. Therefore, "a" of Formula (I) is 1 in amended Formula (V) of claim 13.

13. Formula (VI) of Claim 14

The Examiner asserts that Formula (VI) is unclear. To expedite prosecution, Applicants have amended claim 14 by deleting Formula (VI) and defining b, b', e, e', f, and f' as 1, which is exactly equivalent to deleted Formula (VI).

14. R³ in Claims 15-18

Applicants agree with the Examiner that R³, as defined in claim 5, cannot be "H." Applicants have amended claims 15-18 to remove H as a possible R³ group.

15. The Claim 19 Phrase "Primary Alkyl Amine" in

The Examiner asserts that the term "primary alkyl amine" in claim 19 is inconsistent with the definitions of the R groups as set forth in claim 5. In response, Applicants have deleted R³, R⁸, and R⁹ from claim 19.

16. Formula (II) and Formula (IX) of Claim 30

The Examiner alleges that Formula (II) of claim 30 is indefinite. Applicants have amended claim 30 to explicitly recite the structure of Formula (II) in claim 30.

The Examiner further alleges that Formula (IX) of claim 30 is not encompassed by R⁵ as defined in claim 5. As explained above in section C.8., Applicants respectfully submit that claim 30 does not recite that Formula (IX) is a substituted alkyl. Rather, claim 30 recites that Formula (IX) is a substituent of R⁵, wherein R⁵ is a substituted alkyl. Therefore, Applicants respectfully submit that Formula (IX) of claim 30 is clear and definite.

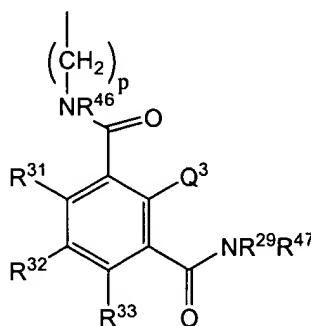
17. The Claim 30 Term "Optionally"

The Examiner asserts that claim 30 is unclear for the recitation of the phrase "wherein R⁴² can optionally form a ring with R⁴¹, R⁴³ or both." As explained above in section C.4., Applicants respectfully submit that the phrase "wherein R⁴² can optionally form a ring with R⁴¹, R⁴³ or both" of claim 30 is clear. Applicants note that an identically worded phrase issued in U.S. Patent No. 6,515,113 (see claim 5), which was examined by the Examiner and from which the current application claims priority. In addition, Applicants respectfully submit that one of skill in the art would immediately recognize that where R⁴² forms a ring with both R⁴¹ and R⁴³, two rings are formed, both of which include R⁴² and the carbon to which R⁴² is attached. Applicants further submit that one of skill in the art would immediately recognize that the structures of the 2 rings formed would be a combination of

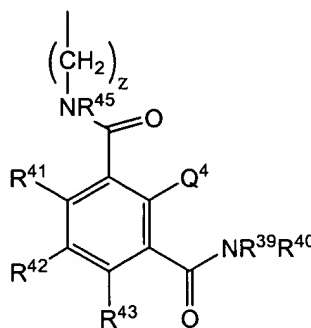
those recited in claim 30, i.e. cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems.

18. Formula (X) of Claim 31

The Examiner asserts that Formula (X) does not fit within the definition of Formula (I) of claim 5. Applicants respectfully submit that Formula (X) is encompassed by Formula (I), wherein R^4 is a substituted alkyl with the structure:



wherein the alkyl group is $(CH_2)_p$. Similarly, R^5 in Formula (X) is a substituted alkyl with the structure:



wherein the alkyl group is $(CH_2)_p$. Therefore, because Formula (X) contains R^5 and R^4 as defined in claim 5, Formula (X) is encompassed by Formula (I) of claim 5.

19. Claim 37 Antecedent Basis

Applicants agree with the Examiner that there is no antecedent basis for the term "said primary alkyl amine" in claim 37 as filed. Applicants have amended claim 37 to depend from claim 36, which contains the phrase "primary alkyl amine."

20. R²⁹ of Claim 47

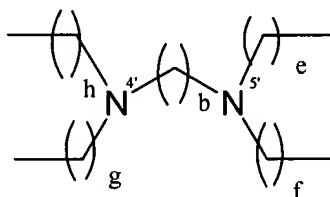
Applicants agree with the Examiner that R²⁹ is undefined in claim 47 as filed. Applicants have amended claim 30, from which claim 47 depends, to explicitly recite and define R²⁹.

21. The Claim 47 Phrase "A Single Linker Moiety"

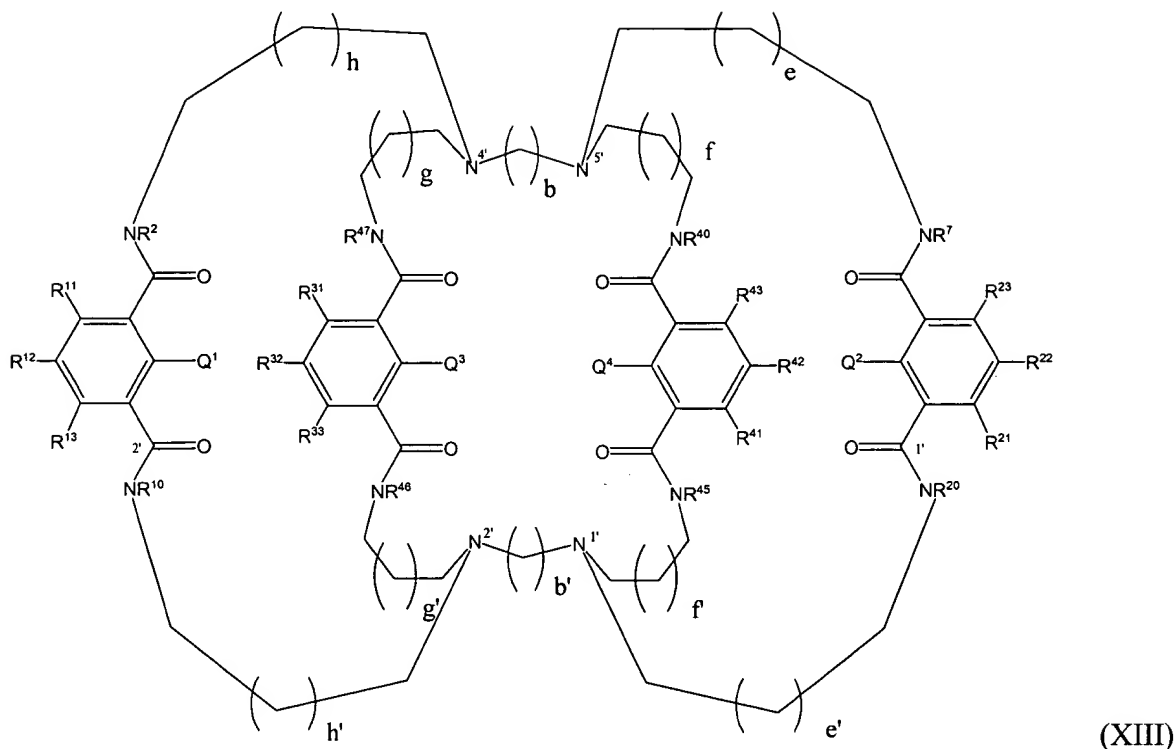
The Examiner asserts that the phrase "R¹, R⁶, R²⁹ and R³⁹ together comprise a single linker moiety" is unclear. Applicants have deleted claim 47 solely for the purpose of expediting prosecution.

22. Formula (XII) of Claim 48

The Examiner asserts that it is unclear where the structure of Formula (XII) of claim 48 appears as a moiety in the structure of Formula (I) of claim 5. As explained in section C.2., Applicants have amended claims 48 and 49 to explicitly identify the linker moiety nitrogens relative to the atoms of Formula (I) of claim 5. In light of the discussion in section C.2., Applicants respectfully submit that the relationship between Formula (XII) of claim 48, Formula (XIII) of claim 49 and Formula (I) of claim 5 is clear. Amended Formulas (XII) and (XIII) are shown below.



(XII)



Therefore, Applicants respectfully submit that the position of the linker moiety is clear from the specification and the amended Formula (XII) and Formula (XIII).

D. Response to Claim Rejections Under 35 U.S.C. §112, First Paragraph

Claims 5-63 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention. The Examiner notes two rationales for the rejection under 35 U.S.C. §112, first paragraph.

In paragraph f2), the Examiner asserts that the claim language noted in paragraphs 1), 2), 4), 8), 10)-13), 17), 18), 21), and 23) of the §112, first paragraph rejection is not supported by an adequate written description. Applicants respectfully submit that in light of the remarks and claim amendments noted above in sections C.1.-C.22., the claim language clearly defines the compounds encompassed by the invention and that the claims are supported by an adequate written description.

In paragraph f)1), the Examiner asserts that, after reading the specification, one skilled in the art would not be able to prepare all the compounds encompassed by the claims. The Examiner notes that to overcome this rejection, Applicants must point out support in the specification for methods of preparing the compounds of claim 12-14, 21, 30, 46, 49 and 63 as well as preparing the compounds of Formula (I), wherein "two or more of R^2 , R^4 , R^5 . . . are optionally joined by at least one linker moiety to form at least one ring." Therefore, Applicants direct the Examiner to exemplary syntheses in the specification for each of the compounds of claims 5, 2-14, 21, 30, 46, 49 and 6.

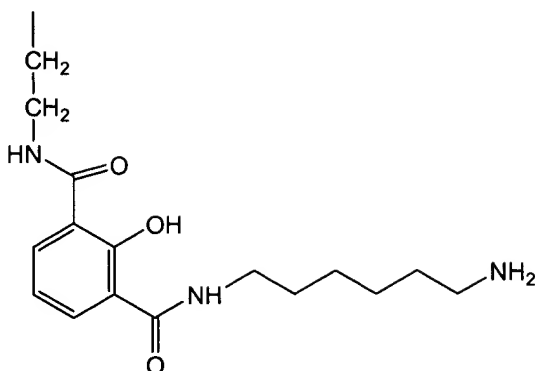
1. Preparation of the Compounds of Claims 12-14

An exemplary synthesis of the compounds of claims 12 and 14 is presented in the specification at page 77, line 6 to page 78, line 26 and in FIG. 1. In this exemplary synthesis, the structure of $\text{Me}_3(\text{bicappedTRENsAM})$ **3** corresponds to Formula (IV), wherein $-\text{OR}^{18}$, $-\text{OR}^{19}$ and $-\text{OR}^{32}$ are $-\text{OH}$; R^{11} , R^{12} , R^{13} , R^{21} , R^{22} , R^{23} , R^{31} , R^{32} , and R^{33} are hydrogen; b, e, f, b', e', and f' are 1; and $\text{N}^{3'}$ is derived from the linking moiety TREN (tris(2-aminoethyl)amine).

An exemplary synthesis of the compound of Formula (V) of claim 13 is presented in the specification at page 77, line 6 to page 78, line 12 and in FIG. 1. The structure of $\text{Me}_3(\text{bicappedTRENsIAM-tris}(2\text{-mercaptothiazolide})$ **2** corresponds to Formula (V), wherein OR^{18} , OR^{19} and OR^{32} are $-\text{OCH}_3$; and R^{11} , R^{12} , R^{13} , R^{21} , R^{22} , R^{23} , R^{31} , R^{32} , and R^{33} are hydrogen.

2. Preparation of the Compound of Claim 21

An exemplary synthesis of the compound of claim 21 is presented in the specification at page 94, line 32 to page 96, line 14 and in FIG. 10. The structure of $\text{H22tetra}(6\text{-amino-1-hexaneamido})\text{IAM}$ **23** corresponds to the compound of claim 21, wherein Q^1 , Q^2 and Q^3 are $-\text{OH}$; R^3 is $-\text{CH}_2\text{-CH}_2\text{-}$; R^8 and R^9 are $-\text{CH}_2\text{-CH}_2\text{-}$; $-\text{NR}^1\text{R}^2$, $-\text{NR}^6\text{R}^7$, and $-\text{NR}^{29}\text{R}^{47}$ are $-\text{NH}(\text{CH}_2)_6\text{-NH}_2$; and R^{11} , R^{12} , R^{13} , R^{21} , R^{22} , R^{23} , R^{31} , R^{32} , and R^{33} are hydrogen. Applicants note that in exemplary compound **23**, R^5 is a substituted alkyl having the structure:



Applicants further note that the amino substituent $-(\text{CH}_2)_6\text{-NH}_2$ is a C_6 alkyl chain bearing an amine moiety at the ω -position, as recited in claim 21.

3. Preparation of the Compound of Claims 30 and 46

An exemplary synthesis of the compound of claim 30 is presented in the specification at page 94, line 32 to page 96, line 14 and in FIG. 10 (discussed above in relation to compound 23). Additional exemplary syntheses of the compound of claim 30 are presented in FIG. 11, (compounds 31, 33 and 34), FIG. 12 (compounds 36-39 and 40-43), FIG. 21 (compounds 45-47), and at page 96, line 26 to page 99, line 2.

Similarly, compound 23 of FIG. 10 also corresponds to the compound of claim 46, wherein $-\text{NR}^{39}\text{R}^{40}$ is $-\text{NH}-(\text{CH}_2)_6\text{-NH}_2$ and R^3 is $-\text{CH}_2\text{-CH}_2-$.

4. Preparation of the Compound of Claims 49 and 63

An exemplary synthesis of the compounds of Formula (XII) of claim 49 and Formula (XIV) of claim 63 is presented in the specification at page 87, line 20 to page 88, line 5. The structure of $\text{Me}_4\text{Bicapped H22IAM 13}$ corresponds to both Formula (XII) and Formula (XIV), wherein Q^1 , Q^2 , Q^3 , and Q^4 are $-\text{OH}$; R^2 , R^{10} , R^7 , R^{20} , R^{40} , R^{45} , R^{46} , R^{47} , R^{11} , R^{12} , R^{13} , R^{21} , R^{22} , R^{23} , R^{31} , R^{32} , R^{33} , R^{41} , R^{42} , and R^{43} are hydrogen; b, h, e, g, f, b', h', e', g', and f' are zero; and $\text{N}^{4'}$ and $\text{N}^{5'}$ are derived from the linker moiety tetrakis(2-aminoethyl)ethylenediamine (H22).

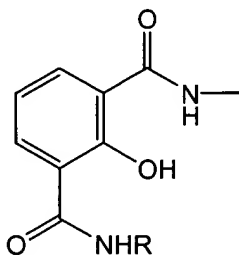
5. Preparation of the Compounds of Formula (I)

Exemplary syntheses of the compounds of Formula (I) wherein "two or more of R^2 , R^4 , R^5 . . . are optionally joined by at least one linker moiety to form at least one ring" are presented in the specification at page 77, line 6 to page 78, line 26 and in FIG. 1 (see section D.1. above), and at page 87, line 20 to page 88, line 5 (see section D.5. above).

Therefore, because the specification teaches exemplary syntheses for the compounds of claims 5, 12-14, 21, 30, 46, 49 and 63, Applicants respectfully assert that after reading the specification, one skilled in the art would be able to prepare all the compounds encompassed by the claims.

E. Clarification of the Terms "Phthalamide" and "Phthalamidyl"

The Examiner has requested clarification of the terms "phthalamide" and "phthalamidyl." As used in the present application, "phthalamide" and "phthalamidyl" refer to amido derivatives of 1,3-benzenecarboxylic acid ("iso-phthalic acid") in which the 2-position is substituted. A representative "phthalamidyl" structure is displayed below:



Applicants respectfully submit that the terms "phthalamide" and "phthalamidyl" clearly refer to amide derivatives of 1,3-benzenecarboxylic acid in which the 2-position is substituted. As the Examiner points out, "phthalic acid" conventionally refers to 1,2-benzenecarboxylic acid. One of skill in the art would also recognize that 1,3-benzene dicarboxylic acid is referred to as "iso-phthalic acid." Thus, one of skill would recognize that the terms "phthalamidyl" or "phthalamide" refer to an amide of a benzene dicarboxylic acid. Phthalamidyl, as recited in the present application, have the structure set forth above,

or they are substituted derivatives thereof. Therefore, one of skill would recognize that, as used in the present patent application, the terms "phthalamidyl" and "phthalamide" refer to the substructure set forth above and substituted derivatives thereof.

If the Examiner feels that the use of a term other than "phthalamidyl" or "phthalamide" is necessary to clarify the substructures described by these terms, Applicants will consider replacing the terms with others of the Examiner's suggestion. Alternatively, if the Examiner feels that it would clarify the specification, Applicants will submit an amendment to the specification providing a definition of "phthalamidyl" and "phthalamide" which is similar in scope to that set forth above. Applicants submit that, as the substructure occurs repeatedly throughout the specification, the addition of the definition to the specification would not represent new matter.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kenneth E. Jenkins". The signature is fluid and cursive, with the first name "Kenneth" and last name "Jenkins" clearly distinguishable.

Kenneth E. Jenkins, Ph.D.
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